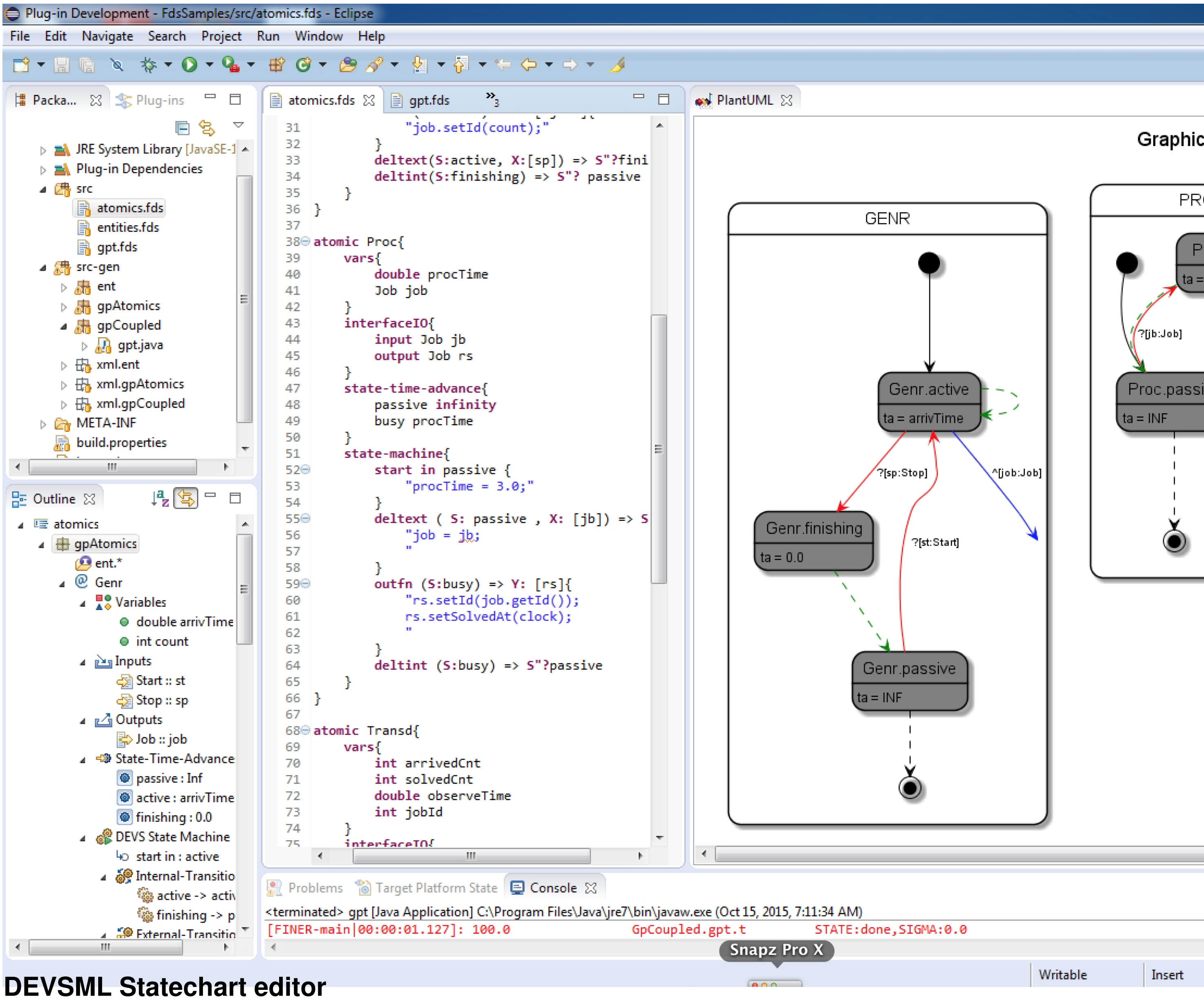
Software/Tutorials available through the **Support site** .

- **xDEVS-core**: Discrete Event M&S kernel in Java developed in collaboration with Complutense University of Madrid, Spain. Released under GNU Lesser General Public License (LGPL)
- **DEVSML Eclipse Editor**: Eclipse DEVSML Development Studio released under Eclipse Public License (EPL). It features an auto-generated statechart and component-diagram Plantuml visualization. The execution of a coupled model generates a simulation trace that can be viewed as a Sequence diagram in the Plantuml view.

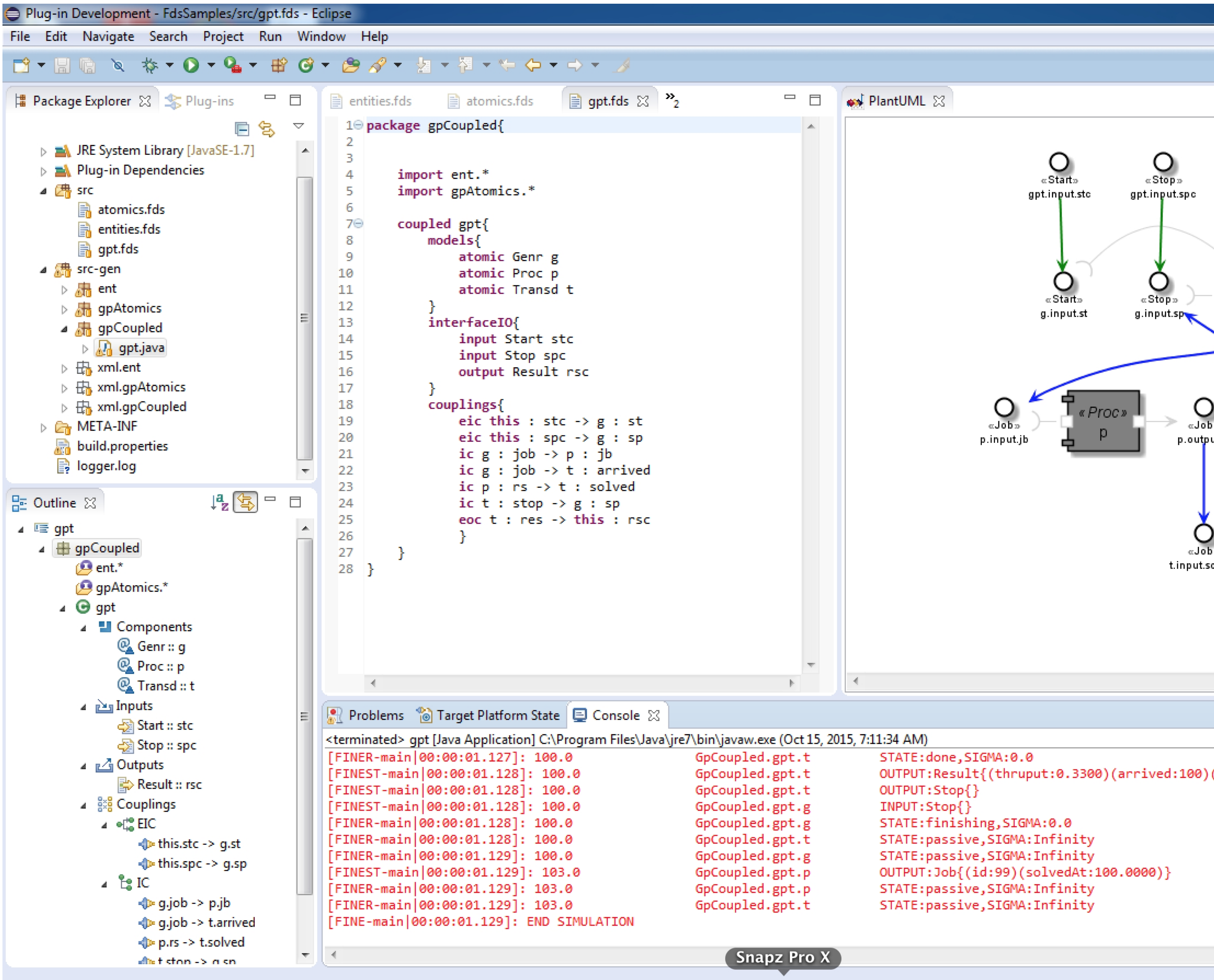
Editor Snapshots



```
            "job.setId(count);"
        }
        deltext(S:active, X:[sp]) => S"?fini
        deltint(S:finishing) => S"? passive
    }
}

atomic Proc{
    vars{
        double procTime
        Job job
    }
    interfaceIO{
        input Job jb
        output Job rs
    }
    state-time-advance{
        passive infinity
        busy procTime
    }
    state-machine{
        start in passive {
            "procTime = 3.0;"
        }
        deltext ( S: passive , X: [jb]) => S
            "job = jb;
            "

        }
        outfn (S:busy) => Y: [rs]{
            "rs.setId(job.getId());
            rs.setSolvedAt(clock);
            "
        }
        deltint (S:busy) => S"?passive
    }
}

atomic Transd{
    vars{
        int arrivedCnt
        int solvedCnt
        double observeTime
        int jobId
    }
    interfaceIO{
```

```
<terminated> gpt [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Oct 15, 2015, 7:11:34 AM)
[FINER-main|00:00:01.127]: 100.0            GpCoupled.gpt.t            STATE:done,SIGMA:0.0
```

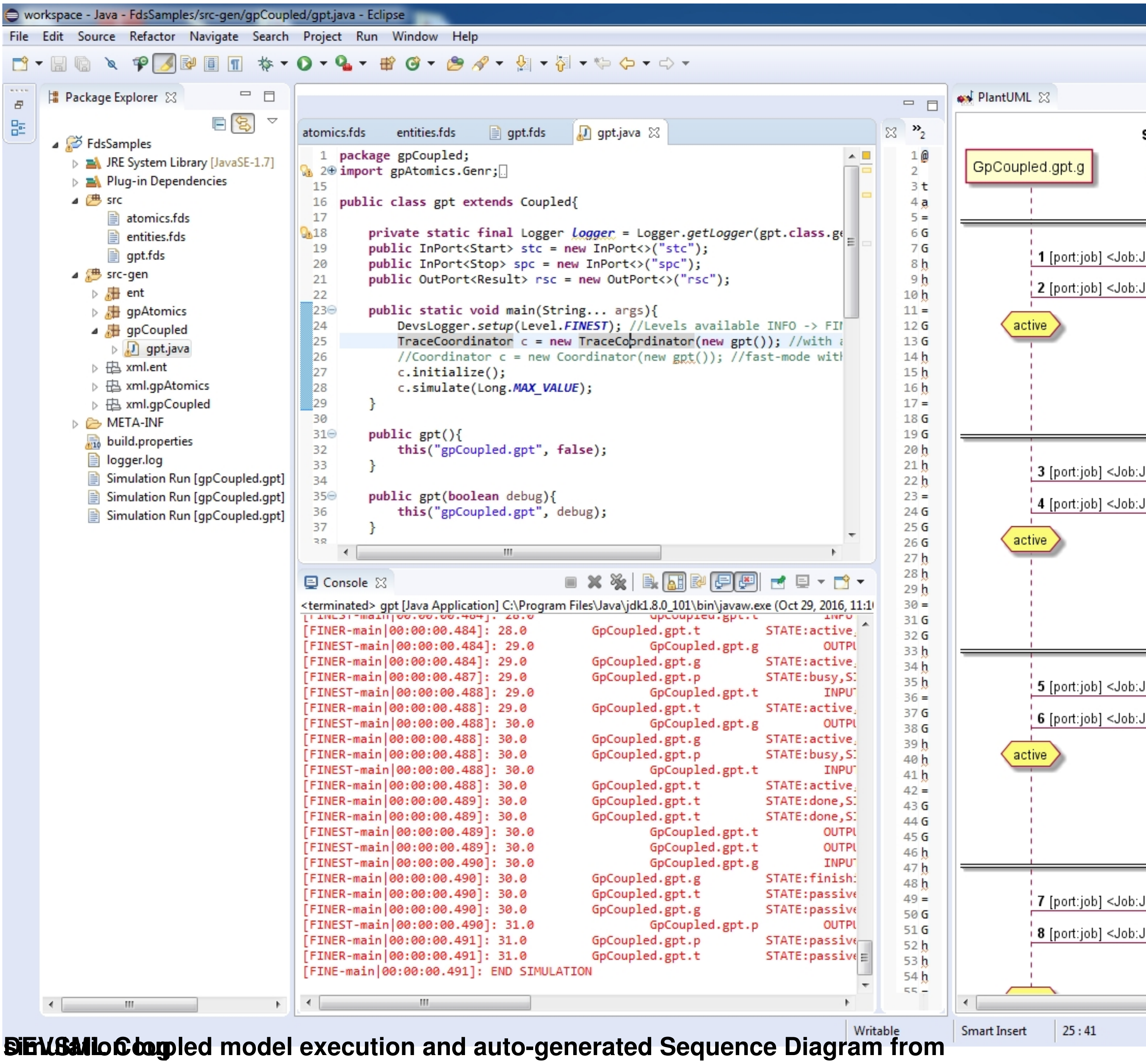
DEVSML Statechart editor



```
package gpCoupled{


    import ent.*
    import gpAtomics.*

    coupled gpt{
        models{
            atomic Genr g
            atomic Proc p
            atomic Transd t
        }
        interfaceIO{
            input Start stc
            input Stop spc
            output Result rsc
        }
        couplings{
            eic this : stc -> g : st
            eic this : spc -> g : sp
            ic g : job -> p : jb
            ic g : job -> t : arrived
            ic p : rs -> t : solved
            ic t : stop -> g : sp
            eoc t : res -> this : rsc
            }
    }
}
```

```
<terminated> gpt [Java Application] C:\Program Files\Java\jre7\bin\javaw.exe (Oct 15, 2015, 7:11:34 AM)
[FINER-main|00:00:01.127]: 100.0          GpCoupled.gpt.t       STATE:done,SIGMA:0.0
[FINEST-main|00:00:01.128]: 100.0         GpCoupled.gpt.t       OUTPUT:Result{(thruput:0.3300)(arrived:100)(
[FINEST-main|00:00:01.128]: 100.0         GpCoupled.gpt.t       OUTPUT:Stop{}
[FINEST-main|00:00:01.128]: 100.0         GpCoupled.gpt.g       INPUT:Stop{}
[FINER-main|00:00:01.128]: 100.0          GpCoupled.gpt.g       STATE:finishing,SIGMA:0.0
[FINER-main|00:00:01.128]: 100.0          GpCoupled.gpt.t       STATE:passive,SIGMA:Infinity
[FINER-main|00:00:01.129]: 100.0          GpCoupled.gpt.g       STATE:passive,SIGMA:Infinity
[FINEST-main|00:00:01.129]: 103.0         GpCoupled.gpt.p       OUTPUT:Job{(id:99)(solvedAt:100.0000)}
[FINER-main|00:00:01.129]: 103.0          GpCoupled.gpt.p       STATE:passive,SIGMA:Infinity
[FINER-main|00:00:01.129]: 103.0          GpCoupled.gpt.t       STATE:passive,SIGMA:Infinity
[FINE-main|00:00:01.129]: END SIMULATION
```

[illegible] couplings reflect



```java
package gpCoupled;
import gpAtomics.Genr;

public class gpt extends Coupled{

    private static final Logger logger = Logger.getLogger(gpt.class.ge
    public InPort<Start> stc = new InPort<>("stc");
    public InPort<Stop> spc = new InPort<>("spc");
    public OutPort<Result> rsc = new OutPort<>("rsc");

    public static void main(String... args){
        DevsLogger.setup(Level.FINEST); //Levels available INFO -> FI
        TraceCoordinator c = new TraceCoordinator(new gpt()); //with a
        //Coordinator c = new Coordinator(new gpt()); //fast-mode wit
        c.initialize();
        c.simulate(Long.MAX_VALUE);
    }

    public gpt(){
        this("gpCoupled.gpt", false);
    }

    public gpt(boolean debug){
        this("gpCoupled.gpt", debug);
    }
```

```
<terminated> gpt [Java Application] C:\Program Files\Java\jdk1.8.0_101\bin\javaw.exe (Oct 29, 2016, 11:1
[FINER-main|00:00:00.484]: 28.0        GpCoupled.gpt.t         STATE:active
[FINEST-main|00:00:00.484]: 29.0               GpCoupled.gpt.g        OUTPU
[FINER-main|00:00:00.484]: 29.0        GpCoupled.gpt.g         STATE:active
[FINER-main|00:00:00.487]: 29.0        GpCoupled.gpt.p         STATE:busy,S
[FINEST-main|00:00:00.488]: 29.0               GpCoupled.gpt.t        INPU
[FINER-main|00:00:00.488]: 29.0        GpCoupled.gpt.t         STATE:active
[FINEST-main|00:00:00.488]: 30.0               GpCoupled.gpt.g        OUTPU
[FINER-main|00:00:00.488]: 30.0        GpCoupled.gpt.g         STATE:active
[FINER-main|00:00:00.488]: 30.0        GpCoupled.gpt.p         STATE:busy,S
[FINEST-main|00:00:00.488]: 30.0               GpCoupled.gpt.t        INPU
[FINER-main|00:00:00.488]: 30.0        GpCoupled.gpt.t         STATE:active
[FINER-main|00:00:00.489]: 30.0        GpCoupled.gpt.t         STATE:done,S
[FINER-main|00:00:00.489]: 30.0        GpCoupled.gpt.t         STATE:done,S
[FINEST-main|00:00:00.489]: 30.0               GpCoupled.gpt.t        OUTPU
[FINEST-main|00:00:00.489]: 30.0               GpCoupled.gpt.t        OUTPU
[FINEST-main|00:00:00.490]: 30.0               GpCoupled.gpt.g        INPU
[FINER-main|00:00:00.490]: 30.0        GpCoupled.gpt.g         STATE:finish
[FINER-main|00:00:00.490]: 30.0        GpCoupled.gpt.t         STATE:passive
[FINER-main|00:00:00.490]: 30.0        GpCoupled.gpt.g         STATE:passive
[FINEST-main|00:00:00.490]: 31.0               GpCoupled.gpt.p        OUTPU
[FINER-main|00:00:00.491]: 31.0        GpCoupled.gpt.p         STATE:passive
[FINER-main|00:00:00.491]: 31.0        GpCoupled.gpt.t         STATE:passive
[FINE-main|00:00:00.491]: END SIMULATION
```

DEVSML Coupled model execution and auto-generated Sequence Diagram from Simulation log